JS 10/28/21
RJA 2/17/22

SAT Report for Case # P-18-0233

General

[redacted]

Report Status:	Complete	**Status Date:**	08/06/2018		
CRSS Date:	07/16/2018	**SAT Date:**	07/17/2018	**SAT Chair:**	[redacted]
Consolidated PMN?	N				
Consolidated Set:					
Submitter:	[redacted]				
CAS Number:	[redacted]				
Ecotox Related Cases:					
Health Related Cases:	[redacted]				
Chemical Name:	[redacted]				
Use:	Resin in solvent-borne [redacted]				
Trade name:	[redacted]				
PV Max (kg/yr):	[redacted]				
Ecotox Assessor:	[redacted]	**Fate Assessor:**	[redacted]	**Health Assessor:**	[redacted]

Physical Chemical Information

Molecular Weight:	[redacted]	**Physical State - Neat:**	Solid		
Percent 500:	[redacted]	**Percent 1000:**	[redacted]		
Melting Point (Measured):		**Melting Point (est):**		**MPD (EPI):**	
Vapor Pressure:		**Vapor Pressure (est):**	<0.000001	**VP (EPI):**	
Water Solubility:		**Water Solubility (EST):**	<0.000001	**Water Solubility (EPI):**	
Log Kow:				**Log Kow (EPI):**	
Log P:		**Log P Comment:**			

SAT Concern

Ecotox Rating (1):	1	**Ecotox Rating Comment (1):**	
Ecotox Rating (2):		**Ecotox Rating Comment (2):**	
Health Rating (1):	2	**Health Rating Comment (1):**	
Health Rating (2):		**Health Rating Comment (2):**	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	Comments
3	1	2	

Exposure Based Review (Health)?	
Exposure Based Review (Ecotox)?	N
SAT Keywords:	SYST, REPRO, DEV

Fate Assessment Summary:	P-18-0217-18 FATE: Liquid with MP < [redacted] °C (E) S < 0.001 mg/L at 25 °C (E) VP < 1.0E-6 torr at [redacted] °C (E) [redacted] H < 1.00E-8 (E) POTW removal (%) = [redacted] via sorption and possible biodeg; [redacted] [redacted] Time for complete ultimate aerobic biodeg ≥ mo Sorption to soils/sediments = v.strong PBT Potential: P3B3 *CEB FATE: Migration to ground water = negl Bioconcentration factor to be put into E-FAST: 9000
Removal in WWT/POTW (Overall):	[redacted]

Condition	Rating Values w/ Rating Description	Comment
WWT/POTW Sorption:	3	4
WWT/POTW Stripping:	4	
Biodegradation Removal:	4	

Condition	Rating Values w/ Rating Description	Comment
Biodegradation Destruction:		
Aerobic Biodeg Ult:	4	
Aerobic Biodeg Prim:		
Anaerobic Biodeg Ult:	4	
Anaerobic Biodeg Prim:		
Hydrolysis (t1/2 at pH 7,25C) A:		
Hydrolysis (t1/2 at pH 7,25C) B:		
Sorption to Soils/Sediments:	1	
Migration to Ground Water:	1	
Photolysis A, Direct:		
Photolysis B, Indirect:		
Atmospheric Ox A, OH:		
Atmospheric Ox B, O3:		

Health Assessment

Health Summary: Absorption of the neat material is nil all routes; if in solution absorption of the LMW fractions is poor all routes (pchem).

There is potential concern for lung toxicity based on cationic binding (uncertainty based on [redacted]). If dimethylethanolamine (DMEA) and ethylene glycol are released from the absorbed [redacted] fractions, there are concerns for systemic, reproductive and developmental toxicity.

The Human Health Form A presents a more complete screening profile for this substance including evaluation of its uncertainties and available information.

Routes of Exposure:	Dermal , Oral, Inhalation

Test Data Submitted

Test Data Submitted:	Notes: SAT conclusions for related cases: [redacted]

Ecotox Assessment

Test organism	Test Type	Test Endpoint	Predicted	Measured	Comments
Fish	96-h	LC50	*		NES
Daphnid	48-h	LC50	*		NES
Green Algae	96-h	EC50	*		NES
Fish	-	Chronic Value	*		NES
Daphnid	-	Chronic Value	*		NES
Green Algae	-	Chronic Value	*		NES

Factors	Most Sensitive Endpoint	Assessment Factor	CoC	Comment
Acute Acquatic:	NES	5/4	*	NES
Chronic Acquatic:	NES	10	*	NES

Ecotox Route of Exposure?	No releases to water

Factors	Values	Comments
SARs:	Polycationic Polymers	
SAR Class:	Polymers-cationic-insoluble-0.82% A-N	
TSCA NCC Category?	Polycationic Polymers	

Recommended Testing

Ecotox
Value Comments

Predictions are based on SARs for polycationic polymers (insoluble); [redacted] MP (P); S = negligible (P); effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150 mg/L as CaCO3; and TOC <2.0 mg/L.

Ecotox Factors Comments

Environmental

Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risks because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA estimated environmental hazard of this new chemical substance using hazard data on analogous chemicals. Based on these estimated hazard values, EPA concludes that this chemical substance has low environmental hazard.

• Substance falls within the TSCA New Chemicals Category of Polycationic Polymers.
• SAR chemical class of polymers-cationic-insoluble- 0.82% A-N.
• For PMN low hazard based on no effects at saturation.

Environmental Risk:
•Risks were not identified for ecotoxicity.